UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,934	12/29/2000	James Neal Richter	RNOT.80303	8042

5251	7590	03/23/2004

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EXAMINER
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ART UNIT	PAPER NUMBER
2171	16

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/751,934	RICHTER ET AL.
	Examiner	**Art Unit**	
	Susan Y Chen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
> - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *15 January 2004*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,2,4-12 and 14-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1,2,4-12 and 14-25* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/15/2004 has been entered.

2.   This is in response to amendment filed on 01/15/2004.

3.   Claims 1-2, 4-12 and 14-25 are pending for examination, claims 1, 4, 5, 12, 14, 16, 18, 23 have been amended.

4.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claim 1 is rejected under 35 U.S. C. 101 because the claimed invention is

directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the

technological art. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural

phenomena) that do not apply, involve, use, or advance the technological art fail to

promote the "progress of science and the useful arts" (i.e., the physical sciences as

opposed to social sciences, for example) and therefore are found to be non-statutory

subject matter. For a method claim to pass muster, the recited process must somehow

apply, involve, use, or advance the technological art.

As to technological arts recited in the preamble, mere recitation in the preamble

(i.e., intended or field of use) or mere implication of employing a machine or article of

manufacture to perform some of the recited steps does not confer statutory subject

matter to an otherwise abstract idea unless there is positive recitation in the claim as a

whole to breathe life and meaning into the preamble. In Bowman (Ex parte Bowman, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished), the board affirmed the rejection under U.S.C. 101 as being directed to non-statutory subject matter. Although Bowman discloses transforming physical media into a chart and physically plotting a point on said chart, the Board held that the claimed invention is nothing more than an abstract idea, which is not tied to any technological art or environment.

In the present case, claim 1 recite an abstract idea at the preamble for classifying informational items in an information retrieval system, the steps in the claim body merely evaluating the weight on a set of informational items base on certain ensemble of clustering algorithms, which can be implemented by the mind of a person or by the use of a pencil and paper.   In another words, since the claim only constitute an idea and does not apply, involve, use, or advance the technological arts, thus, it is deems to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 12, 16 and18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 12, 16 and 18, it is not understood what does it meant by "Bayesian-type non-probabilistic Network" (i.e., since applicant's specification fails to define what is the claimed "Bayesian-type non-probabilistic Network", thus, it renders these claims indistinct).

Because the ambiguous nature of claims 12, 16 and 18, thus, no art rejection will be given to these claims in the instant office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-2, 4-11 and 14-15, 17, 19-22, are rejected under 35 U.S.C. 102(e) as being anticipated by Horvitz et al. (U.S. Patent No. 6,182,133).

As to claim 1, Horvitz et al. (hereinafter referred as Horvitz) discloses a method as claimed by applicant, comprising:

a) detecting an access of first information item [e.g., 80, Fig. 1; Fig. 16 and associated text];

b) detecting an access of a second informational item [e.g., 30, Fig. 1; Fig(s) 6 and associated text];

c) applying an ensemble of clustering algorithms to the combination of said first informational item and said second informational item [e.g., col. 43, lines 14-16];

d) establishing that a relationship link exists between said first informational item and second informational item [e.g., col. 1, lines 53-59]; and

e) determining a non-probabilistic weight for the relationship link, said weight proportional to the historical frequency of the selection of the combination of informational items [e.g., the simple rank ordering of URLs at col. 4, lines 39-43].

As to claim 2, except all the features recited in claim 1 above, Horvits further discloses that the step of detecting the second informational item includes the detecting of a plurality of informational items [e.g., col. 4, lines 20-30].

As to claim 4, except all the features recited in claim 2 above, Horvits further discloses that the step of applying an algorithm for data aging wherein the usage of the relationship link is monitored and used as feed back for the weight associated with the relationship link [e.g., col. 5, lines 38-52].

As to claims 5-6, except all the features recited in claim 4 above, Horvits further discloses that the step of applying a repeatedly pruning algorithm wherein external information regarding the usefulness of at least one relationship link is utilized to modify the existence of a recorded relationship link and determine if a recorded relationship link should be ignored [e.g., the refinement processing at col. 4, lines 50-62; col. 5, lines 11-18; lines 55-60].

As to claim 7, except all the features recited in claim 5 above, Horvits further discloses that the step of applying said pruning algorithm makes use of a user determined feedback of the usefulness of a relationship [e.g., col. 28, lines 3-22].

As to claim 8, except all the features recited in claim 2 above, Horvits further discloses that said ensemble includes a plurality of algorithms and wherein said relationship link is weighted in direct proportion to the number of algorithms within said ensemble of algorithms that determine the existence of said relationship link [e.g., col. 32, line 63 – col. 33, line 14; Fig. 11A-11B and associated texts].

As to claim 9, except all the features recited in claim 2 above, Horvits further discloses that said relationship link is positioned in a list in direct proportion to the degree of consensus among said ensemble of algorithms [e.g., col. 10, lines 47-61].

As to claim 10, except all the features recited in claim 2 above, Horvits further

discloses that said ensemble includes a plurality of algorithms and each of said

algorithms runs independently of all other algorithms [e.g., col. 11, lines 6-12].

As to claim 11, except all the features recited in claim 2 above, Horvits further

discloses that the step of merging the outputs of said ensemble of algorithms [e.g., col.

12, lines 1-20, Fig. 2 and associated texts].

As to claims 14-15, 17, 19, 20-22, these claims recited the same features as

claims 1-11 in form of computer apparatus or a readable storage medium product,

hence are rejected for the same reason.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Horvitz (U.S. Patent No. 6,182,133) and in view of Zellweger (U.S. Patent No.

5,630,125).

As to claim 23-25, Horvitz did not expressly disclose the method having steps of:

a) recursively determining (or reexamining) an efficient path for a particular help item (or a subsequent help item) of interest, based on the context in which the help item (or subsequent help item) was sought; and

b) dynamically changing and storing the context and path in which a help item (or a subsequent help item) is sought.

However, Zellweger disclosed a system having method to:

a) recursively determining (or reexamining) an efficient path for a particular help item (or a subsequent help item) of interest, based on the context in which the help item (or subsequent help item) is sought [Abstract, Improving Menu Access, col. 8, line 65 - col. 9, line 56, Fig. 8 and associated texts]; and

b) dynamically changing and storing the context as well as path in which a help item (or a subsequent help item) is sought by any subsequent user [col. 5, lines 5-17; col. 7, lines 1-5; col. 8, lines 50-62; for example, see Fig(s). 7-8].

Thus it would have been obvious to one of the ordinary skill in the art to combine the teachings of Horvitz and Zellweger to further modify Horvitz' system with the features as claimed by applicant, because by doing so, Harvitz system will provide both mutually exclusive and non-exclusive access paths to the help item (or subsequent help item) of interest sought by an end user and facilitate the retrieving of the stored context in which a help item (or subsequent help items) are sought.

Response to Arguments

8.   Applicant's arguments filed on 01/15/2004 have been fully considered but they
are not persuasive.

Regards, the 35 U.S.C. 112 rejections, the examiner disagrees with applicant's
arguments that: a) "The term "Bayesian-type" is defined in the application to be a
network *resembling* a traditional Bayesian network, but modified such that the
relationships between the nodes are represented by a *weighted value* instead of a
conditional probability." b) "Applicants' weighted value or relationship strength is
determined through a non-probabilistic process, which is described at page 9, line 17 to
page 10, line 21 of the specification... thus, the term non-probabilistic is appropriate."

In reply to these arguments, the examiner points out there is no where in the
instant specification recites the above definition quoted by applicant. Furthermore,
although applicant try to use page 9, lines 17 to page 10, line 21 of the instant
specification to support the claimed feature "non-probabilistic" weight, however, as
AAPA admitted "the weighted value of relationship strength is an integer that in one
embodiment corresponds to the number of times a user has navigated from one node to
another node" (Page 9, lines 11-13 of Amendment filed on 01/15/2004), since the
method to implement the claimed non-probabilistic weight various from person to
person, application to application and system to system, and the instant specification
fails to show any converging algorithm to integrate the various methods in the instant

invention. Thus, claiming a broader scope --non-probabilistic weight -- with an actual

implementation of a narrower scope – integer weight-- is clearly inappropriate.

Regards, the 35 U.S.C. 102 rejections, the examiner disagrees with applicant's

arguments that: a) the teachings of Horvitz are limited to Bayesian networks; b) Horvitz

certainly does not teach, suggest or imply a network in which a link weight or strength is

proportional to the historical frequency of the selection of the combination of

informational items as in amended claim 1 or claim 14.

In reply to these arguments, the examiner points out that Harvitz specifically

disclosed at col. 4, lines 39-47 as following:

> "*For a given user, the user model can be, e.g., a simple rank ordering of URLs based on log data of page transitions across all individuals who visit a given web site containing those pages or a Bayesian model of the preferences of that user encoded in terms of, e.g., numeric conditional probabilities, of selecting, e.g., given a displayed page, other pages. This model can reside in a web server, a client or across both. "*

Thus, in contrary to applicant's arguments of the prior art, Harvitz invention
clearly read the claimed features in a combination as disclosed above.

Regards, the 35 U.S.C. 103 rejections, the examiner disagrees with applicant's

arguments that "Zellweger, is limited to a system that is available to only one user, the

user or author that customizes the system. This is directly opposite the method claimed

in claim 23, as amended, in which the stored context and path are made available to

any subsequent user."

In reply to applicant's arguments against Zellweger individually, the examiner

points out that one cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ

375 (Fed. Cir. 1986).

Furthermore, Zellweger specifically discloses his data retrieval system

comprising the claimed features by applicant, for example, at Abstract lines 26-34,

Zellweger cites the following:

"...Also disclosed is an embodiment of the invention that can be

used to manage and distribute product information to buyers in the form of an

electronic catalog. Buyers use the custom features of an Information System

generated by the Application module to locate products, generate orders for the

products, and transmit orders electronically to a vendor of the products.

Product suppliers can also customize features in the electronic catalog to

record the access path used by a buyer to create a product order."

Wherein, Zellweger's system is clearly not available to only one user and the

stored context and path are made available to any subsequent user [e.g., Fig. 8].

Thus, based on the combined discussions cited above, in contrary to applicant's

arguments of the prior art, the combination of Zellweger and Horvitz teachings

successfully read the claimed features recited by applicant.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Susan Y Chen whose telephone number is (703) 308-

1155. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Susan Y Chen
Examiner
Art Unit 2171

Susan Chen
March 19, 2004

UYEN LE
PRIMARY EXAMINER